

## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listing of claims in the above-referenced application.

### **Listing of Claims:**

51. (Currently Amended) A method of viewing a visual form of data associated with tags comprising:

selecting a database containing a plurality of reports wherein each report includes a representation of a visual form of the data corresponding to one of a print form of the data or a display form of the data and associated tags, wherein at least one of said tags is included in the visual form of the data, wherein horizontal and vertical coordinates identify a location of at least one text element represented in the visual form;

~~opening the database;~~

~~issuing a query to the database;~~

~~providing a list of reports including the visual form of the data and associated tags corresponding to the query;~~

selecting at least one report [[from the list]];

for each page of the at least one report, constructing a named temporary file for [[each]] a metafile containing metafile data corresponding to said each page ~~the at least one report selected;~~  
and

executing a previewer program which accesses a control file to view said visual form of the data represented by the metafile data included in said named temporary file corresponding to said each page, said control file including said at least one tag and a name of said named temporary file for each metafile corresponding to a page of the at least one report, wherein said

viewer program is operable to perform searching for instances of specified text in said at least one report, said searching further comprising:

identifying each text command in one or more selected metafiles and coordinates

identifying a position of text associated with said text command;

sorting text commands in accordance with each of said one or more selected metafiles, Y coordinate position within a display, and X coordinate position within the display;

forming a list of records of text strings from said sorted text commands, wherein a position of each text string in the display is associated with each record; and

concatenating a first text string of said text strings with a second text string of said text strings if said first and second text strings are within a predetermined percentage of text height.

52. (Previously Presented) The method of Claim 51 further comprising:

playing the named temporary file to view said visual form of the data by issuing a play metafile command to an operating system.

53. (Canceled)

54. (Currently Amended) The method of Claim 51, wherein after selecting the at least one report [[from the list]], the method further includes:

selecting from one of printing, previewing and sending to another application the at least one report.

55. (previously presented) The method of Claim 54, wherein selecting printing further includes:

transmitting the named temporary file to a printer device.

56. (previously presented) The method of Claim 54, wherein sending the at least one report to another application includes:

creating a send control file including one or more tags, metafile names, a name associated with a destination application, and a set of keystrokes defining how a paste operation is performed in the destination application.

57. (previously presented) The method of Claim 56, wherein sending the at least one report to another application further includes:

executing a separate program that uses the send control file to paste the at least one report in a predetermined location in the destination application.

58. (previously presented) The method of Claim 51, wherein opening the selected database further includes:

prompting the user for a password.

59. (previously presented) The method of Claim 51, further comprising:

selecting one of a sort and filter operation to be applied to records of the database associated with said list of reports; and

determining a visual indicator for each record to be displayed indicating whether said each record has been altered based on cyclic redundancy codes of tags for said each record.

60. (Previously Presented) The method of Claim 51, further comprising:  
querying the selected database in accordance with filter parameters.

61. (previously presented) The method of Claim 60, further comprising:  
indicating at least one selected record to the service layer from the query interface, said at least one selected record corresponding to the at least one report selected;  
requesting metafiles associated with the at least one selected record from the service layer;  
preparing a query statement at the service layer with the at least one report associated with the at least one selected record and pages of the at least one report as a filter;  
executing the query statement on a metafile table associated with the database;  
storing a metafile for each page of the at least one report in a temporary file;  
constructing a list including one or more of report identifiers, page numbers and metafile names; and  
providing the list to the query interface to process the list in a predetermined manner in accordance with the selecting from one of printing, previewing and sending to another application the at least one report.

62. (previously presented) The method of Claim 60, further including scrolling through a list of records corresponding to reports to further display additional records.

63. (previously presented) The method of Claim 60, wherein after opening the selected database, the method further includes copying records from the selected database to another database.

64. (previously presented) The method of Claim 63, wherein copying records from the selected database to another database further includes:

receiving a user selection of one or more records at the query interface;

receiving a copy command at the query interface;

prompting the user for a destination database to be opened; and

copying the one or more records into the destination database.

65. (previously presented) The method of Claim 51, wherein after opening the selected database the method further includes deleting records from the selected database.

66. (previously presented) The method of Claim 65, wherein deleting records from the selected database includes:

receiving a user selection of one or more records for deletion at the query interface;

receiving a delete command at the query interface; and

deleting the selected one or more records for deletion from the database.

67-68. (Canceled)

69. (previously presented) The method of Claim 51, further comprising:

selecting a portion of a selected metafile using said previewer program.

70. (previously presented) The method of Claim 69, further comprising:  
forming a new metafile in accordance with said selecting said portion of said selected metafile.

71. (previously presented) The method of Claim 70, further comprising:  
representing a selection of said portion of said selected metafile using coordinates  
defining a rectangular-like shape;  
comparing each command of the selected metafile to the coordinates, wherein said each command is included in the new metafile if said each command is one of: has no associated coordinates and produces display information within a shape formed by the coordinates; and  
modifying said each command to be constrained within said coordinates if said each command produces display information that is both inside and outside the shape formed by the coordinates.

72. (Currently Amended) A computer program product for viewing a visual form of data associated with tags comprising:

machine executable code for selecting a database containing a plurality of reports wherein each report includes a representation of a visual form of the data corresponding to one of a print form of the data or a display form of the data and associated tags, wherein at least one of said tags is included in the visual form of the data, wherein horizontal and vertical coordinates identify a location of at least one text element represented in the visual form;

~~machine executable code for opening the database;~~

~~machine executable code for issuing a query to the database;~~

~~machine executable code for providing a list of reports including the visual form of the data and associated tags corresponding to the query;~~

machine executable code for selecting at least one report [[from the list]];

machine executable code for constructing, for each page of the at least one report, a named temporary file for [[each]] a metafile containing metafile data corresponding to said each page ~~the at least one report selected;~~ and

machine executable code for executing a previewer program which accesses a control file to view said visual form of the data represented by metafile data included in said named temporary file corresponding to said each page, said control file including said at least one tag and a name of said named temporary file for each metafile corresponding to a page of the at least one report, wherein said previewer program is operable to perform searching for instances of specified text in said at least one report, and further comprising machine executable code for:

identifying each text command in one or more selected metafiles and coordinates identifying a position of text associated with said text command;

sorting text commands in accordance with each of said one or more selected metafiles, Y  
coordinate position within a display, and X coordinate position within the display;  
forming a list of records of text strings from said sorted text commands, wherein a  
position of each text string in the display is associated with each record; and  
concatenating a first text string of said text strings with a second text string of said text  
strings if said first and second text strings are within a predetermined percentage of text height.

73. (Previously Presented) The computer program product of Claim 72 further comprising:

machine executable code for playing the named temporary file to view said visual form of the data by issuing a play metafile command to an operating system.

74. (Canceled)

75. (previously presented) The computer program product of Claim 73, wherein the computer program product further includes:

machine executable code for selecting from one of printing, previewing and sending to another application the at least one report.

76. (previously presented) The computer program product of Claim 75, wherein said machine executable code for selecting printing further includes:

machine executable code for transmitting the named temporary file to a printer device.



77. (previously presented) The computer program product of Claim 75, wherein said machine executable code for sending the at least one report to another application includes:

machine executable code for creating a send control file including one or more tags, metafile names, a name associated with a destination application, and a set of keystrokes defining how a paste operation is performed in the destination application.

78. (previously presented) The computer program product of Claim 77, wherein said machine executable code for sending the at least one report to another application further includes:

machine executable code for executing a separate program that uses the send control file to paste the at least one report in a predetermined location in the destination application.

79. (previously presented) The computer program product of Claim 72, wherein said machine executable code for opening the selected database further includes:

machine executable code for prompting the user for a password.

80. (previously presented) The computer program product of Claim 72, further comprising:

machine executable code for selecting one of a sort and filter operation to be applied to records of the database associated with said list of reports; and

machine executable code for determining a visual indicator for each record to be displayed indicating whether said each record has been altered based on cyclic redundancy codes of tags for said each record.

81. (previously presented) The computer program product of Claim 72, further comprising:

machine executable code for querying the selected database in accordance with filter parameters.

82. (previously presented) The computer program product of Claim 81, further comprising:

machine executable code for indicating at least one selected record to the service layer from the query interface, said at least one selected record corresponding to the at least one report selected;

machine executable code for requesting metafiles associated with the at least one selected record from the service layer;

machine executable code for preparing a query statement at the service layer with the at least one report associated with the at least one selected record and pages of the at least one report as a filter;

machine executable code for executing the query statement on a metafile table associated with the database;

machine executable code for storing a metafile for each page of the at least one report in a temporary file;

machine executable code for constructing a list including one or more of report identifiers, page numbers and metafile names; and

machine executable code for providing the list to the query interface to process the list in a predetermined manner in accordance with the selecting from one of printing, previewing and sending to another application the at least one report.

83. (previously presented) The computer program product of Claim 81, further including machine executable code for scrolling through a list of records corresponding to reports to further display additional records.

84. (previously presented) The computer program product of Claim 81, wherein after opening the selected database, the computer program product further includes machine executable code for copying records from the selected database to another database.

85. (previously presented) The computer program product of Claim 84, wherein said machine executable code for copying records from the selected database to another database further includes:

machine executable code for receiving a user selection of one or more records at the query interface;

machine executable code for receiving a copy command at the query interface;

machine executable code for prompting the user for a destination database to be opened;

and

machine executable code for copying the one or more records into the destination database.

86. (previously presented) The computer program product of Claim 72, wherein after opening the selected database the computer program product further includes machine executable code for deleting records from the selected database.

87. (previously presented) The computer program product of Claim 86, wherein said machine executable code for deleting records from the selected database includes:

machine executable code for receiving a user selection of one or more records for deletion at the query interface;

machine executable code for receiving a delete command at the query interface; and

machine executable code for deleting the selected one or more records for deletion from the database.

88-89. (Canceled)

90. (previously presented) The computer program product of Claim 72, further comprising:

machine executable code for selecting a portion of a selected metafile using said previewer program.

91. (previously presented) The computer program product of Claim 90, further comprising:

machine executable code for forming a new metafile in accordance with said selecting said portion of said selected metafile.

92. (previously presented) The computer program product of Claim 91, further comprising:

machine executable code for representing a selection of said portion of said selected metafile using coordinates defining a rectangular-like shape;

machine executable code for comparing each command of the selected metafile to the coordinates, wherein said each command is included in the new metafile if said each command is one of: has no associated coordinates and produces display information within a shape formed by the coordinates; and

machine executable code for modifying said each command to be constrained within said coordinates if said each command produces display information that is both inside and outside the shape formed by the coordinates.

93. (Previously Presented) The method of Claim 51, wherein at least one of said plurality of reports includes a command for at least one of: drawing an object, drawing a line, drawing a shape, drawing text, and controlling style of at least one element included in a report.

94. (Previously Presented) The method of Claim 93, wherein said command is associated with a portion of a display or print area.

95. (Previously Presented) The method of Claim 51, wherein the visual form of the data is represented in a vector image.

96. (Previously Presented) The method of Claim 51, wherein the visual form of the data is represented in a metafile.

97. (Previously Presented) The computer program product of Claim 72, wherein at least one of said plurality of reports includes a command for at least one of: drawing an object,

drawing a line, drawing a shape, drawing text, and controlling style of at least one element included in a report.

98. (Previously Presented) The computer program product of Claim 97, wherein said command is associated with a portion of a display or print area.

99. (Previously Presented) The computer program product of Claim 72, wherein the visual form of the data is represented in a vector image.

100. (Previously Presented) The computer program product of Claim 72, wherein the visual form of the data is represented in a metafile.

101. (New) A method of viewing a visual form of data associated with tags comprising:

- selecting a database containing a plurality of reports wherein each report includes a representation of a visual form of the data corresponding to one of a print form of the data or a display form of the data, wherein horizontal and vertical coordinates identify a location of at least one text element represented in the visual form;
- selecting at least one report;
- for each page of the at least one report, constructing a named temporary file for a metafile containing metafile data corresponding to said each page; and
- executing a previewer program which accesses a control file to view said visual form of the data represented by the metafile data included in said named temporary file corresponding to said each page, said control file including a name of said named temporary file for each metafile corresponding to a page of the at least one report, wherein said previewer program is operable to perform searching for instances of specified text in said at least one report, said searching further comprising:
  - identifying each text command in one or more selected metafiles and coordinates
  - identifying a position of text associated with said text command represented in the visual form;
  - and
  - concatenating a first text string of said text strings with a second text string of said text strings if said first and second text strings are within a predetermined percentage of text height.